65. The method of claim **64**, wherein the second procedure is performed a second time after the first procedure has been performed a second time.

66. The method of claim **63**, wherein the masking layer comprises photoresist.

67. The method of claim **66**, further comprising redistributing the photoresist in the masking layer prior to performing the etching step.

68. The method of claim **67**, wherein redistributing the photoresist comprises thermally annealing the photoresist.

69. The method of claim **67**, wherein redistributing the photoresist causes the masking layer to have slanted sidewalls adjacent to the opening.

70. The method of claim **63**, wherein the etching step results in the recess extending through the entire thickness of the electrode-defining layer.

71. The method of claim **70**, wherein the etching step is a first etching step, the method further comprising a second etching step resulting in the recess further extending into the III-N material structure.

72. The method of claim **63**, wherein the device further comprises an additional dielectric layer having a thickness between the electrode-defining layer and the III-N material structure.

73. The method of claim **72**, wherein the etching step results in the recess further extending through the entire thickness of the additional dielectric layer.

74. The method of claim **72**, wherein the device further comprises a passivation layer having a thickness between the electrode-defining layer and the additional dielectric layer.

75. The method of claim **74**, wherein the etching step results in the recess further extending through the entire thickness of the passivation layer.

76. The method of claim **63**, wherein the electrode is an anode and the III-N device is a diode.

77. The method of claim **63**, wherein the electrode is a gate, and the III-N device is a transistor.

78. The method of claim **63**, wherein the etching step results in the sidewall forming an effective angle of about 40 degrees or less relative to the surface of the III-N material structure.

79. The method of claim **63**, wherein the etching step results in at least one of the steps in the sidewall having a first surface that is substantially parallel to the surface of the III-N material structure and a second surface that is slanted, the second surface forming an angle of between 5 and 85 degrees with the surface of the III-N material structure.

* * * * *